JOHN E FOGARTY
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Advisory Board

Summary Minutes of Sixth Meeting

May 19-20, 1987

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
National Institutes of Health

John E. Fogarty International Center
for Advanced Study in the Health Sciences

Advisory Board
Summary Minutes

Date: May 19-20, 1987
Place: Conference Room
Stone House
National Institutes of Health

DEPARTMENT OF HEALTH AND HUMAN SERVICES

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John E. Fogarty International Center
for Advanced Study in the Health Sciences

Sixth Meeting
May 19-20, 1987

The Advisory Board of the John E. Fogarty International Center for Advanced Study in the Health Sciences (FIC) convened for its sixth meeting at 8:30 a.m. on Tuesday, May 19, 1987, in the Conference Room of the Stone House, National Institutes of Health (NIH), Bethesda, Maryland. Dr. Craig K. Wallace presided. The meeting was open to the public for all sessions except that involving secondary review.

Board Members Present:

Dr. Gaspar Garcia de Paredes
Dr. Julius R. Krevans
Dr. Sanford F. Kuvin
Dr. Juan M. Navia
Dr. Frederick C. Robbins
Dr. Robert E. Shope
Dr. Julien L. Van Lancker

Board Members Absent:

Dr. John L. Decker
Mrs. Alice Fordyce
Com. Patti Birge Tyson
Dr. T. Franklin Williams

In addition to FIC staff, others attending were:

Dr. Mark S. Beaubien, Friends of the Fogarty International Center
Dr. Ruth J. Hegyeli, National Heart, Lung, and Blood Institute, NIH
Mr. Michael E. Kurtz, Michael E. Kurtz, Inc.
Mr. Richard M. Loughery, Office of the Assistant Secretary for Health, Department of Health and Human Services (DHHS)
Dr. W. Elbert Wilson, Division of Research Grants, NIH

I. CALL TO ORDER AND OPENING REMARKS

Dr. Craig K. Wallace, Director, FIC, called the meeting to order at 8:30 a.m. on Tuesday, May 19, 1987. He welcomed all Board members and introduced Mr. Richard M. Loughery, Director, Secretary's Advisory Committee Office.

II. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The minutes of the Advisory Board meeting of January 27-28, 1987, were considered and accepted as written.

III. FUTURE MEETING DATES

September 29-30, 1987
January 26-27, 1988
May 24-25, 1988
September 27-28, 1988

IV. REPORT OF THE DIRECTOR, FIC

Dr. Wallace presented highlights of his written Report of the Director provided earlier to the Board and guests. He opened his remarks by noting the transfer of the National Center for Health Statistics from the Office of the Assistant Secretary for Health to the Centers for Disease Control within the Public Health Service (PHS). He also announced that Dr. Katherine L. Bick has been designated as the NIH Deputy Director for Extramural Research. Previously Deputy Director of the National Institute of Neurological and Communicative Disorders and Stroke, Dr. Bick is particularly interested in international aspects of medicine. At the FIC, Mr. Robert Eiss has joined the International Coordination and Liaison Branch, and Dr. Charity Goodman will assist Dr. Coralie Farlee in the Office of Planning and Evaluation. Mrs. Sandra Roberts will join the FIC staff in June as FIC Volunteer Coordinator.

Reporting on the House and Senate Appropriations Subcommittee hearings held in March, Dr. Wallace informed the Board that the total NIH budget for Fiscal Year 1988 is expected to approach $7.3 billion, an increase from the $6.3 billion for Fiscal Year 1987. He then discussed the Senate and House appropriations hearings. Dr. Wallace thanked those Board members who made special efforts to communicate in behalf of the FIC with staff of congressional committees and at subsequent public hearings. He went on to say that the appropriations hearings are becoming increasingly important in conveying to the Congress the results of NIH research activities. Copies of the printed pamphlet containing the FIC Advisory Board's Biennial Report to Congress, FY 1985 and FY 1986 were distributed to the Board, as well as a package of Current Legislative Issues, May 1987.

Dr. Wallace then introduced a new program initiative, the Special International Postdoctoral Research Program in Acquired Immunodeficiency Syndrome (AIDS). The FIC has issued a Request for Applications (RFA) from

U.S. institutions with an interest in developing multidisciplinary fellowship programs in AIDS research; the closing date for receipt of applications is September 15, 1987. This program, which was discussed at the last Board meeting, is designed to support collaborative research between U.S. and foreign scientists in all biomedical and behavioral disciplines related to AIDS. The award will be made to U.S. institutions and will support individual researchers for 3 to 24 months to work in the United States or abroad. The institutional awards will be made for 5 years at a cost of up to $200,000 each per year. The FIC will make at least two awards in Fiscal Year 1988. Dr. Wallace remarked that this program initiative has received considerable support from U.S. academic institutions and will especially complement the International Center for AIDS Research (ICAR) Program of the National Institute of Allergy and Infectious Diseases. Copies of the RFA were distributed to the Board.

Dr. Wallace reported on recent FIC accomplishments and activities. During the week of April 13, the Eighth Session of the U.S.-U.S.S.R. Joint Committee for Health was held in Washington, D.C. Dr. Wallace reported that this committee had not met since 1978 and that the meeting was both interesting and rewarding. Expanded cooperation between the two countries was discussed for the areas of pulmonary biology, arthritis, cancer, and eye research. The U.S. side stressed that bilateral cooperation on AIDS research would not be possible unless the Soviets ceased their disinformation campaign regarding AIDS and acknowledged that the AIDS virus was a naturally occurring retrovirus.

A memorandum of understanding between the NIH and the Austrian Science Foundation was signed in April to support long- and short-term exchange visits of U.S. and Austrian scientists. This program, which will allow exchanges of up to 30 person months per year on each side, is one of two new biomedical research exchange programs that are being coordinated by the FIC.

Dr. Wallace reported that the proceedings of the international symposium on "Research Towards Rabies Prevention" will be published in early 1988 in Reviews of Infectious Diseases. This symposium was co-sponsored by the FIC in November 1986 and was chaired by Dr. Frederick C. Robbins, University Professor, Case Western Reserve University, and member, FIC Advisory Board. The report of the FIC study "Antibiotic Use and Antibiotic Resistance Worldwide" is scheduled for publication in a special May-June 1987 Supplement to the Reviews of Infectious Diseases. A copy will be sent to all Board members.

Dr. Wallace informed the Board that a great deal of interest has been expressed in the upcoming workshop on "Research Towards Global Control and Prevention of Tuberculosis: With an Emphasis on Vaccine Development." This workshop will be held November 3-5, 1987, in Bethesda.

A recent article by Dr. Wallace was distributed to the Board. This article, which summarizes the activities of the FIC, recently appeared in the Journal of the American Medical Association (JAMA, May 15, 1987, Vol. 257, No. 19, p. 2551).

Dr. Wallace also apprised the Board that Dr. John Burke of the FIC was requested by the World Health Organization (WHO) to work in Geneva for a week on a possible collaborative WHO-United Nations International Children's Fund action against childhood diseases that are curable by a single injection of penicillin.

The 40th World Health Assembly was held May 4-16 in Geneva. Dr. Wallace attended as an advisor to the U.S. delegation, which was headed by Undersecretary of DHHS Donald M. Newman and Surgeon General C. Everett Koop. Dr. Wallace reviewed in some detail the Assembly and stated that the 116 delegates who spoke in the plenary session discussed a variety of political, financial, and program issues. The two major issues were WHO's proposed program budget for 1988-89 and AIDS. The delegates agreed, he reported, that AIDS was a global problem requiring worldwide cooperation. The final resolution adopted by the Assembly regarding AIDS will be sent to all Board members. Dr. Wallace here noted that the Soviet delegates fully accepted the wording in the resolution that the AIDS virus was a naturally occurring retrovirus.

The "III International Conference on AIDS" will be held June 1-5 in Washington, D.C. The advance program of this conference was given to all Board members. Dr. Wallace noted that the FIC is coordinating this conference on behalf of the NIH and PHS and that FIC staff have devoted much time and effort to this activity. Dr. Kenneth Bridbord and Mr. James Bryant of the FIC have had particularly active roles. Considerable scientific and media attention is being given to this conference, and more than 5,000 participants are expected.

Celebration of the NIH Centennial continues. Dr. Wallace mentioned that the Scholars-in-Residence Centennial Symposium, which was held May 11-14, was successful and that a joint NIH-Pasteur Institute Symposium on "The Impact of Molecular Biology on Biomedical Research" would follow on May 26-28. The programs for these symposia were given to the Board. On June 8-9, the NIH will host the Standing Committee Meeting of the European Medical Research Councils; on September 25, a joint NIH-Pan American Health Organization (PAHO) panel on cooperative health research in the Region of the Americas will be held. On October 15, the FIC is also holding a reception for Visiting Program participants and alumni. Dr. Wallace announced that observance of the NIH Centennial will continue until the end of calendar year 1987.

In closing, Dr. Wallace distributed an NIH Centennial pin to each Board member. He also mentioned that the second issue of an in-house publication, "Fogarty Focus," was available. This publication is prepared by the FIC's Office of Public Affairs. A list of all FIC publications was made available to the Board.

V. ADVANCED STUDIES WORKING GROUP REPORT

Dr. Robert E. Shope reported on the deliberations of the Advanced Studies Working Group, which centered on two FIC program areas: the International Studies Program (ISP) and the Scholars-in-Residence Program (SIRP). Concerning the ISP, the Working Group reviewed the criteria for

international studies, the process for concept review (revised 3/9/87), and the general statements outlining potential study areas (revised 4/29/87). They recommended that the Board approve the criteria and procedures for concept review of international studies proposals, as documented, but with the deletion of the statement that "all studies must be designed to achieve the intended purposes." These criteria and procedures are as follows:

"Criteria for International Studies

"All studies must:

- be predicated on an adequate base of scientific knowledge;
- be appropriate to the NIH mission;
- result in a product that describes the status of current knowledge, reaches conclusions, and proposes recommendations; and
- have the potential to impact health in the United States and other countries.

"In addition, all studies should fulfill one or more of the following criteria:

- be responsive to a perceived need to study a specific topic;
- be a timely approach to addressing emerging international health issues;
- develop or verify hypotheses relevant to international health matters through an analysis of data collected from diverse geographical sources;
- have potential to influence the development of international science resources and infrastructure; and
- involve one or more NIH components in addition to the FIC."

"Concept Review

"The first step before embarking upon a study is to develop a concept paper which should include:

- study title;
- purpose and rationale, including international significance and dimensions of the problem;

- status of current research and gaps in knowledge;
- study design;
- name and credentials of the proposed principal investigator (or study director);
- time frame for the study;
- suggested place and dates if a workshop or conference is proposed as part of the study plan;
- composition of the proposed steering committee to help guide the study and composition of the organizing committee if a conference is being proposed;
- anticipated budget and other resource requirements; and
- plan for dissemination of results.

"The concept paper will form the basis for discussion, initially with the Advanced Studies Working Group of the FIC Advisory Board and ultimately with the full FIC Advisory Board.

"The Advisory Board will recommend approval, disapproval, or deferral of the concept and may also suggest modifications."

"Implementation

"Once the FIC has embarked upon a given project, it is the responsibility of the principal investigator and the steering or organizing committee, working under the general guidance and support of International Studies Branch staff, to assure the scientific excellence of the proposed activity within the constraints of available resources."

The Board approved the above recommendations of the Working Group. These changes will be incorporated into the FIC Advisory Board Review Procedures.

The Working Group then recommended that the statement of potential study areas be approved by the full Board with one change in item 4 to add "including assessment of the potential to control or eradicate diseases." This addition was proposed because the FIC has conducted several studies in this area. The potential study areas are as follows:

"Potential Study Areas

"1. Studies of geographic variations and trends in disease etiology and epidemiology considering genetic, cultural, and environmental determinants.

"2. Development of concepts and strategies to improve cooperation among biomedical researchers worldwide including strategies to increase involvement of U.S. academic and private institutions in international biomedical research.

"3. Development of novel and improved methods for the dissemination and exchange of biomedical research technologies internationally.

"4. Identification of research needs and opportunities that would enhance disease prevention and control internationally, including assessment of the potential to control or eradicate diseases."

The Working Group also recommended that a more formal mechanism be developed for identifying and selecting new study areas. It proposed that suggestions of new areas could be garnered, for example, from the directors of other NIH institutes, from FIC Scholars-in-Residence, and from selected national scientific groups.

The Working Group specifically reviewed a concept paper prepared by ISP staff for a study on the "Prevention of Hepatocellular Carcinoma Worldwide." The Working Group recommended that the Board consider and approve the concept paper. This international study would be funded by the FIC and organized and conducted by a recognized expert in the field. It would involve a range of activities designed to define research needs, assess the potential for control, and develop strategies for prevention. A formal workshop would be convened as part of the study, with publication of the proceedings. The Working Group suggested that representatives from industry and blood centers be involved in the planning of the workshop. The Board accepted the recommendation of the Working Group to proceed with the study, including the suggested broadened representation on the planning group.

Concerning the Scholars-in-Residence Program, the Working Group addressed the nomination of scholars and the recording of evaluations of the Scholars' Advisory Panel. Dr. Shope reported on these areas in the later closed session of the Board. The Working Group also considered stipends for Scholars, suggesting that they generally be increased above the current level of $60,000 per year and that each stipend be reviewed and negotiated on a case-by-case basis according to specific need. It was recognized that the needs of individual Scholars vary in that some Scholars may receive full or partial salary from their own institutions and certain geographic areas are more costly to live in than others.

VI. RESOURCES WORKING GROUP REPORT

Dr. Sanford F. Kuvin reviewed the discussions of the Resources Working Group. He first highlighted several aspects of the FIC budget, noting that the total budget requested by the FIC for Fiscal Year 1988 is $11.5 million. Of this total, $2 million is included as the gift from the Congress to the Gorgas Memorial Institute/Gorgas Memorial Laboratory. The FIC plans to use $400,000 in Fiscal Year 1988 to support two awards under the new Special International Postdoctoral Research Program in AIDS. The FIC has also submitted a supplemental budget request for an additional $2 million to support up to 10 of the new AIDS fellowships. Dr. Kuvin informed the Board that additional monies will be requested to allow the FIC's International Research Fellowship (IRF) Program to change from 1- to 2-year awards, and to support bilateral exchange programs with other countries. He closed his review of the discussion on the budget by strongly encouraging all Board members to assume an active public advocacy role in behalf of the FIC, saying that the Congress both welcomes and appreciates input relating to the expenditure of Federal funds in the health area.

Dr. Kuvin then presented an update on the Friends of the Fogarty International Center. He announced that Dr. Mark Beaubien (former Deputy Director, FIC) now heads a committee that includes Mr. Edward Fogarty, nephew of Congressman Fogarty, and Dr. Thomas Malone, former Deputy Director of the NIH. This committee is contacting potential members of the Friends of the Fogarty International Center and is developing both a charter for the nonprofit organization and a slate of nominees.

Considerable progress has been made on deriving a computerized list of FIC award recipients that can be used to maintain contact with these scientists.

Dr. Kuvin went on to commend the FIC on its recent progress toward strengthening its public and scientific image. He pointed to the program of volunteer activities that will be initiated when the new FIC Volunteer Coordinator joins the staff in June and to the accomplishments of Mr. Bryant who, as head of the FIC's new Office of Public Affairs, has already generated much interest in the FIC.

Dr. Kuvin applauded the FIC's role in co-sponsoring the "III International Conference on AIDS" and in organizing the NIH-Pasteur Institute Centenary Symposium. He cited other recent accomplishments as well, including the "Fogarty Focus" newsletter, a variety of news releases and letters informing the public about the NIH Centennial and the upcoming 20th anniversary of the FIC, and the recent article by Dr. Wallace in JAMA. He also reported that the FIC's annual report on the international activities of the NIH had been completed and was in the printing process. Dr. Kuvin added that the Working Group raised the question of initiating a periodic FIC publication that would be designed to keep all Fogarty award recipients abreast of FIC activities.

Regarding staff contributions, Dr. Wallace particularly thanked Ms. Susan Stark, Writer-Editor, FIC, for her assistance in preparing the annual report and for her role in the FIC's Public Affairs program. He also added

some remarks on the need to consolidate Fogarty office space and the possibilities of doing so in a new NIH building planned for completion in 1992.

VII. RESEARCH AWARDS WORKING GROUP REPORT

Dr. Julien L. Van Lancker presented the recommendations of the Research Awards Working Group regarding the Senior International Fellowship (SIF) Program. These recommendations referred to the report entitled "Evaluation of the Senior International Fellowship Program," which was completed in June 1986. The Working Group specifically recommended that (1) up to two SIF fellowships should be allowed per scientist, the budget set-aside for the additional fellowships should not exceed 15 percent of the total FIC annual budget, and these awards should remain competitive and based on merit; (2) the minimum duration of a fellowship should be limited to 6 months except in rare cases in which 3-month support could be justified; (3) the language regarding applicant eligibility in the FIC brochure should be modified to include "through cooperative research" and "public health sciences"; (4) the program should be publicized more broadly in a variety of ways (e.g., at additional association meetings, by forwarding advertising information to former Fellows and encouraging them to contact and interview potential Fellows, by advertising the program in selected additional publications, and by supplementing distribution of the brochure with a listing of current senior Fellows); (5) a letter of recommendation from the dean of the applicant's institution should continue to be required, but deans should not be involved in specifically nominating candidates; (6) no changes should be made in the stipends, but allowance should be made for Fellows staying at least 9 months in a host institution for one brief trip back to their home institution for scientific purposes; and (7) with improved dissemination of information about the FIC, broader geographical distribution of fellowship awards within the United States should be sought and targeting of minorities, women, and public health scientists working in biomedical research should be improved.

Two additional issues regarding the evaluation report were raised during the discussion following Dr. Van Lancker's presentation. These concerned the length of applications, as correlated with the duration of the proposed project, and the requirement for host institution support, which may effectively limit the countries and organizations in which Fellows could work to those that can afford to provide support.

To clarify all of these issues for Board action, FIC staff will prepare a summary document that describes present practice and policy, identifies the proposed changes and implications, and makes specific recommendations. This document will be presented to the Board for final review and discussion. Board members were encouraged to forward their comments regarding the recent evaluation report to Dr. Farlee so that they could be incorporated into the staff's summary document.

Dr. Wallace spoke of the tremendous potential of the SIF Program and the need to promote greater interest in it. The Board discussed at some length possible reasons for the lack of interest among American scientists in working abroad, particularly in developing countries. It was noted that

an announcement will be forthcoming in the NIH Guide to Grants and Contracts that will describe existing NIH mechanisms (e.g., the National Research Service Award (NRSA), the Research Career Development Award, and other awards) that are available to support U.S. scientists to work in other countries.

Dr. Farlee added that the current survey of U.S. doctoral recipients in science and engineering, sponsored by the NIH, the National Science Foundation (NSF), and the Department of Energy, and conducted by the National Research Council, includes a question relating to perceived incentives and disincentives for international scientific mobility. An analysis of the responses to this question may stimulate additional studies of this topic.

On a related issue of science resources, Dr. Kuvin recommended that the FIC distribute to the Board copies of a recent Institute of Medicine publication entitled The United States Capability to Address Infectious and Tropical Diseases. This report considers global pandemic diseases and the resources and capability of the United States to respond to these problems. Copies will be provided to Board members.

VIII. FIC MISSIONS, PROGRAM ACCOMPLISHMENTS, ACTIVITIES, PLANS

Dr. Wallace introduced this subject as the focus of two Board meetings that will review the five chartered missions of the FIC. This comprehensive review involves an assessment of FIC program accomplishments and activities and future plans. The Board addressed three of the five FIC mission statements at the present meeting, and the remaining two will be addressed at the next Board meeting in September. A summary of the Board's discussion relating to the first three mission statements is presented below.

A. "Facilitate the assembly of scientists and others in the biomedical, behavioral, and related fields for discussion, study, and research relating to the development of science internationally."

The main FIC activity relating to this mission statement is the Scholars-in-Residence Program.

Scholars-in-Residence Program

Dr. Peter G. Condliffe, Chief, Scholars-in-Residence Branch, FIC, opened the discussion on this program. He posed a number of issues and questions to the Board relating to the philosophy and organization of the program. He set forth the original intent of the SIRP, established in 1969, and briefly described the selection process used initially. He noted that the process of nomination and selection has become more systematic and refined over the years. The average Scholar's length of stay continues to be approximately 4 to 5 months at a time.

Dr. Condliffe went on to discuss several factors that philosophically influence the direction of the program. These include the mandate to assemble Scholars to conduct research and the requirement for interaction

among themselves and within the NIH community. He pointed out that this interaction is often very limited because of the Scholars' divergent scientific interests and that, in general, they have very little impact on overall NIH policy or on transnational health problems. He also said that although the quality of the Scholars remains high, the criteria for their selection (which include scientific and intellectual excellence, professional stature in the field, and capability to interact within the NIH community) often preclude the participation of scientists from countries that do not have a strong science base or an established linkage with NIH intramural laboratories. Dr. Condliffe reviewed the present system of nomination and selection and questioned whether this internal NIH process necessarily limits the field of selection. Some 25 to 30 individuals are presently nominated each year by senior NIH staff and former Scholars. These nominees are reviewed initially by a committee of senior NIH scientists and secondarily by the FIC Advisory Board. Based on the Board's recommendation, the Director of the FIC makes a final selection of 8 to 10 Scholars annually. To open this opportunity to a broader range of individuals, Dr. Condliffe suggested that the FIC may wish to consider inviting individuals to apply directly for the Scholars-in-Residence Program.

Following Dr. Condliffe's opening remarks, the Board entered into an in-depth discussion of the selection process and the activities of Scholars during their tenure at the NIH. The Board focused first on the interaction of Scholars among themselves and with other scientific groups during their tenure and on the advantages of a continuing relationship with the NIH after a Scholar returns to his or her home institution. It was suggested that an increase in the numbers of Scholars (i.e., a critical mass) may influence the level of their interaction, but not necessarily, given their different interests. Dr. Condliffe elaborated on several typical daily activities of Scholars and noted that regular informal and formal activities are scheduled to foster interaction and discussion. The Board also raised questions about how a Scholar's productivity is measured, whether Scholars are asked to provide any self-evaluation of their activities, and whether they have been asked to evaluate the program. It was suggested that Scholars' productivity could be measured by their impact on research or science internationally. It was also noted that FIC support is acknowledged in all published work resulting from a Scholar's tenure at the NIH. Dr. Wallace urged the Board to consider whether the best individuals are being nominated under the current system.

The Board then focused attention on the FIC mission under which this program falls, i.e., to "facilitate . . . research relating to the development of science internationally." Some members strongly felt that the current nomination and selection process did not accomplish this goal but served to benefit only the NIH scientific community. It was felt that the present system did not allow for adequate numbers of nominations to come from a wide spectrum of individuals who may be more internationally oriented or from developing areas of the world. Nominations of scientists who had temporarily moved into administrative positions, such as minister of health, would also contribute to the building of science internationally. Board members agreed, however, that "scientific excellence" must remain as the first criterion of selection but adjustments may be needed within the current system in order to broaden participation. Such adjustments could

include, for example, a shift in emphasis among the selection criteria to encourage nominees to propose ways in which they could enrich science in other countries after their tenure, or a requirement that Scholars give a series of lectures in another country as part of their commitment.

It was also suggested that the 149 former Scholars be followed up to determine if they have been active internationally and to encourage them to play an active role in contributing to science internationally. The Board noted that the three present criteria for the selection of Scholars do not relate to the "internationalization" of science, except for the recently added component that requires that Scholars be expected to "interact with . . . colleagues at their home institution after returning from residency at the NIH." But because Scholars may be from the United States, this criterion cannot ensure "internationalization." The Board then discussed the possibility of adding a criterion for selection of Scholars that would address the issue of "enhancing" or "developing science internationally."

Going beyond modifying the present system, the Board also considered an alternative approach that would establish an extramural program or component to support international postdoctoral research separately from the present program. Dr. Condliffe pointed out that the conduct of advanced study was the original intent of the program, and that another aim was the promotion of international science and research. It was also postulated that the strength of the program may lie in its flexibility and in the mix of individual interests that can be gathered together.

The Board concluded that the criteria for selection to the Scholars-in-Residence Program needed additional careful study. Present "users" of the program, i.e., NIH senior laboratory chiefs and scientific directors, as well as members of the Scholars' Advisory Panel, will be invited to participate in discussions of the program and in developing recommendations. Dr. Shope, a member of the Advanced Studies Working Group, will also participate. The Advanced Studies Working Group will develop a specific proposal that the full Board can consider at its next meeting in September.

The Board concluded that the first mission statement remains appropriate.

B. "Provide research programs, conferences, and seminars to further international cooperation and collaboration in the life sciences."

Two program activities of the FIC relate to this mission statement: the International Studies Program and the FIC-WHO Collaborating Center (FIC-WHO CC) for Research and Training in Biomedicine.

International Studies Program

Dr. Kenneth Bridbord, Chief, International Studies Branch, FIC, presented an overview of ISP activities and proposed future directions for this program. He listed three functions of the ISP: to address topics of international significance in biomedical and behavioral research, to foster

the transfer of research results through the exchange of information, and to review and evaluate the state of knowledge in major biomedical research areas. Dr. Bridbord stated that the main emphasis of the program has been the potential to eradicate infectious diseases. Since 1980, the FIC has sponsored international conferences in the areas of (1) measles, (2) polio, and (3) yaws and other endemic treponematoses. These three conferences have resulted in renewed international commitments in each area since it was decided that a number of diseases are potentially eradicable. Other activities that are related to infectious diseases and have been coordinated under the ISP include the symposium on "Research Towards Rabies Prevention" and the studies on "Antibiotic Use and Resistance Worldwide," the results of which will both be published in Reviews of Infectious Diseases. The upcoming workshop on "Research Towards Global Control and Prevention of Tuberculosis: With an Emphasis on Vaccine Development" also comes under this program.

Future ISP activities will be developed under the criteria approved in the morning session, with future projects devoted to one of the four study areas. Dr. Bridbord set forth four major goals and listed specific initiatives under each goal. The first goal is "to contribute to the improvement of health worldwide by a systematic program to review and evaluate the existing body of knowledge to prevent disease and to define critical research needs." Dr. Bridbord emphasized that disease prevention will be an extremely important part of future programs that will include both chronic and infectious diseases. He cited the proposed study on the "Prevention of Hepatocellular Carcinoma Worldwide" as one example of the new focus on chronic diseases. Other proposals being developed relate to measles in children, acute respiratory illnesses, low birth rate, lung cancer, hypertension and cholesterol-lowering, and AIDS.

The second goal for future ISP activities is "to provide opportunities for biomedical and behavioral researchers outside the Federal Government to contribute to the ISP." A working group has been established at the FIC to develop the concept of an International Studies Fellowship Program.

Dr. George Curlin, Medical Officer, International Studies Branch, spoke to the third program goal, "to play a leadership role in enhancing international biomedical research programs and opportunities through interaction with other components of the NIH, the PHS, and other organizations." He described recent accomplishments in two programs, the Vaccine Development and Health Research Participating Agencies Service Agreement and the Vaccine Action Program. Dr. Curlin emphasized that the FIC is taking an active leadership role in developing studies that include typhoid VI antigen and acellular pertussis vaccine trials. He also suggested that these activities could serve as a model for similar studies that receive support from other agencies but have an international dimension that lies within the purview of the FIC.

The fourth goal for future ISP activities is "to develop innovative strategies to enhance international research collaboration in the biomedical and behavioral sciences." Dr. Bridbord cited as one initiative a collaboration with the National Institute of Environmental Health Sciences and the Swedish Work Environment Fund on a toxicology workshop to be held in

Sweden. Follow-up activities to the FIC symposium in 1983 on "The Role and Significance of International Cooperation in the Biomedical Sciences" are also contemplated.

Dr. Bridbord concluded by noting that study topics can come from a variety of sources, including the FIC Advisory Board, and that the FIC will look for ways to broaden the sources of study topics as suggested by the Board. He also noted that future emphasis in the program will be given to studies conducted by individuals or small teams of experts.

In the discussion that followed, the Board commented on the overlap of ISP activities with programs of other organizations such as the National Academy of Sciences' Board of Science and Technology for International Development (BOSTID) and the Institute of Medicine Board of International Health, which provide grant support of up to $100,000 per year per project in areas such as respiratory and viral diseases, and rapid epidemiological assessment. The Board also commented on the FIC's ability to access funds from the U.S. Agency for International Development (USAID), while providing expertise not otherwise available to USAID. Dr. Bridbord agreed that interaction between the FIC and other agencies could be improved, and he pointed to the recent effective cooperation between USAID and the FIC on the "III International Conference on AIDS" in providing support for some of the participating scientists.

The Board also commented on the increase in preventable diseases among adults in the United States and the need for new adult immunization programs. Dr. Curlin elaborated on the FIC's leadership role in collaborative agency studies that have an international dimension, e.g., in the development and testing of vaccines for disease problems specific to the developing world. The Board expressed support for such a role.

Dr. Wallace asked the Board to address ways in which new study areas could be developed. He underscored that the ISP is an international studies program that goes beyond merely holding conferences. Dr. Farlee added that study areas appropriate to the ISP are broad and often cross NIH institute boundaries, relate to an international need, present collaborative opportunities, and offer a leadership role for the FIC. Some of the areas that Board members raised for consideration are the assessment of the efficacy of adult immunization worldwide against influenza, pneumonia, hepatitis B, tetanus, diphtheria, measles, rubella, yellow fever, and rabies; a critical review of the efficacy of traditional medicines and modern psychophysiological techniques as related to health and behavior; models for improved information dissemination regarding the prevention and control of AIDS; planning and strategies in different countries for the manufacture, assessment of liabilities, and distribution of vaccines yet to be developed (e.g., for AIDS and malaria); potential effect of current pandemics on world populations; and international issues in dental health.

The Board reviewed the second FIC mission statement and determined that it continues to be an appropriate conceptual framework within which to function.

FIC-WHO Collaborating Center for Research and Training in Biomedicine

Dr. Arlene Fonaroff, Responsible Officer, FIC-WHO Collaborating Center, International Coordination and Liaison Branch, FIC, described the organization and accomplishments of the FIC-WHO CC. She informed the Board that the FIC, redesignated this year as a WHO collaborating center for a second 4-year period, is one of 14 such centers at the NIH. The functions of the FIC-WHO CC include stimulation of contacts between U.S. and foreign scientists and institutions, provision of research training through fellowships, organization of symposia, transfer of information, and distribution of publications. Dr. Fonaroff pointed out that activities are FIC-wide and that the International Coordination and Liaison Branch serves as the Executive Secretariat for the Center with Dr. Wallace as Director. There are four criteria for selecting FIC-WHO CC activities: (1) objectives should relate to health priorities of regional or global significance; (2) subjects should have trans-NIH relevance; (3) activities should augment WHO management and support of international research and research training; and (4) activities must foster cooperation between WHO, DHHS, bilateral and multilateral agencies, and nongovernmental bodies.

Dr. Fonaroff remarked that FIC activities conducted under the FIC-WHO CC have enhanced the FIC's liaison activities on behalf of the NIH with WHO and, particularly, with PAHO. The FIC-WHO CC has also supported the objectives of the FIC's ISP, particularly in regard to worldwide disease control efforts and issues related to technology transfer. The FIC-WHO CC has also been valuable to both the FIC and the NIH in sharpening the focus on factors influencing NIH involvement in collaborative studies internationally.

Dr. Fonaroff then highlighted two current projects in cooperation with WHO and its regional offices in the Americas (PAHO) and Southeast Asia (SEARO). The first is an assessment of education and training needs for medical entomologists in vector-borne disease research and control. The second is an assessment of the role of international collaboration in strengthening health sciences research in the Americas. Both projects are aimed at developing recommendations to increase national capability for conducting biomedical and behavioral research that will contribute toward alleviating major disease problems. In reporting on progress, Dr. Fonaroff noted that the first phase of the medical entomology project (conducted in cooperation with PAHO) has been completed and is now being adapted to needs in Southeast Asia. The success of the latter effort will be reviewed with consideration of extending the project to the WHO African Region. The PAHO study focused on in-depth studies in four countries (Colombia, Ecuador, Guatemala, and Panama). Project recommendations to meet manpower development needs were forwarded by PAHO to the ministries of health. PAHO has reported that the project findings have helped to support the development of Master's programs in medical entomology in Mexico and Brazil and to strengthen on-going programs in Panama. The project with SEARO will produce country project proposals for meeting medical entomology needs in all member states.

The second project is being conducted in six Latin American countries and the United States. The objectives of this project are to examine how national science policy, institutional capability, and initiatives of scientists influence the collaborative process; and to apply findings to recommended mechanisms for strengthening collaboration in the health sciences between developed and developing countries in the Americas. Country reports from Latin America are expected this summer, and a workshop of U.S. leaders in the health sciences will be held in July to focus on the U.S. experience in health research collaboration involving Latin America. Drs. Shope and Juan M. Navia, who will be two of the three U.S. country experts for this project, will participate in this workshop. Dr. Fonaroff acknowledged the excellent cooperation by leading scientists, administrators, and policy makers in the six participating countries (Argentina, Brazil, Chile, Costa Rica, Mexico, and Venezuela). She pointed out that the project has provided linkage between PAHO and the leaders of the national research councils in these countries that could not easily have been accomplished by PAHO itself.

In the discussion that followed Dr. Fonaroff's presentation, the Board affirmed the importance of strengthening health research in Latin America and was especially supportive of FIC activities in this regard. In commenting further on the projects, Dr. Fonaroff noted the Board's earlier discussion regarding coordination between similar activities of the FIC and other Government agencies. She said that to avoid duplicated effort, the FIC-WHO CC project planning committee includes representation from BOSTID of the National Academy of Sciences, the International Programs Division of the NSF, as well as the Office of the Science Advisor, USAID.

The Board expressed concern regarding possible raised expectations in the participating countries regarding future support by the NIH or FIC for leverage for organizational change in a country. In response, Dr. Fonaroff said that the study intends to examine how international collaboration can strengthen national capability for health research by examining experiences and ideas from leading scientists as to how the process might be more effective. The FIC will review recommendations and consider supporting follow-up of selected activities that fall within its missions.

C. "Provide postdoctorate fellowships for research training in the United States and abroad and promote exchanges of senior scientists between the United States and other countries."

Two FIC activities are conducted under this mission: the International Research and Award Programs and the Health Scientist Exchange Programs.

International Research and Award Programs

Dr. Bettie J. Graham, Chief, International Research and Awards Branch, FIC, concentrated her review on two long-term fellowship programs supported and administered by the FIC: the Senior International Fellowship and the International Research Fellowship. Dr. Graham invited the Board's comments

on the objectives and acceptable accomplishments for each program and on ways to increase participation. She also considered the balance between these two programs and other pertinent issues.

The concept of an SIF Program was suggested in 1971 to provide opportunities for senior U.S. biomedical scientists to conduct studies or collaborate with foreign scientists in other countries. The first awards were made in 1975. As of Fiscal Year 1986, 510 fellowship awards had been made to U.S. scientists. More than 80 percent of these U.S. Fellows have gone to Europe (with most going to the United Kingdom); 8 percent have gone to Asia, 4 percent to the Americas, 6 percent to the Middle East, and 1 percent to Africa. The average award period has been 8 months.

With reference to recommendations of the Research Awards Working Group, Dr. Graham specifically asked the Board to consider rewording the purpose of the program, as cited in the brochure, to read: "The Senior International Fellowship is intended to enhance the exchange of ideas and information about the latest advances in the health sciences through cooperative research, including basic, clinical, and public health sciences; permit U.S. scientists to participate abroad in ongoing study or research in the health sciences; and improve the research, educational, and clinical potential of the U.S. nominating institution." In its discussion, the Board asked for clarification of the intent of the Working Group on including the words "public health sciences," and Dr. Graham responded that it was to encourage applications from individuals working in this field. The Board generally had no objection to the rewording but thought that the public health sciences would already be covered by the current phrasing. It was also suggested that the last review criterion in the brochure be reworded to read "potential that the proposed research will provide a significant expansion in knowledge . . . ."

In commenting on expected program accomplishments for Senior International Fellowship recipients, the Board considered various measures of outcome (e.g., joint publications with collaborators; learning and using new knowledge, techniques, or skills; and enhancement of research capabilities). The Board also considered the validity of shorter-term measures (e.g., accomplishment of the specific objectives of the project supported by the award) compared to longer-term measures (e.g., continuing collaboration and appointments to boards and councils on which the former Fellow may influence international scientific activities). The Board concluded that both types of measures are helpful for evaluating the overall program. Dr. Wallace reminded the Board that preliminary recommendations from the evaluation of this program, discussed on the previous day, would be summarized for formal review and action by the Board at a subsequent meeting.

Regarding participation in the fellowship program, Dr. Graham informed the Board that the FIC currently receives applications from 100 to 120 candidates for the SIF Program each year, only 35 to 40 of whom can be funded. The Board asked about the availability of additional funds to support an expanded program. Dr. Wallace responded that the FIC wants to be able to point to the fact that it receives many good applications that it

is unable to fund. The Board also suggested that more Fellows be encouraged to work in the countries of Asia, the Americas, the Middle East, and Africa, rather than only in the developed countries of Europe.

Concerning SIF stipends, the Board asked about the possibility of adjusting stipends to the changing value of the U.S. dollar abroad, citing the comparatively low stipends as a possible disincentive to participation in the program. There was speculation that the amount of the stipend and the requirements for eligibility, including the fact that Fellows should not be receiving other Federal support during the period of their FIC award, combine to keep the SIF Program small. It was also suggested that a change in either stipend level or eligibility could dramatically increase interest in the program. Nevertheless, the Board concluded that the SIF Program was attracting a sufficient number of good applications.

Dr. Graham next turned to a review of the International Research Fellowship Program. This program was initiated in 1958 and the first awards were made that year, prior to establishment of the FIC. Individual applications from foreign scientists seeking to conduct collaborative research in the United States are reviewed and selected by Nominating Committees in a participating country, area, or region. There are presently 53 countries, or areas, the most recent addition being Hungary, and two regions (Africa and the Americas) with Nominating Committees. Since 1958, 2,416 International Research Fellowships have been awarded, with the following distribution: 55 percent to scientists in Europe, 20 percent to Asia, 17 percent to the Americas, 5 percent to the Middle East, and 3 percent to Africa.

Dr. Graham summarized the purpose of the IRF Program as "serving to forge relationships between distinguished scientists in the United States and qualified scientists in other countries in order to solve health-related problems of mutual interest." She suggested that the wording "to solve" be softened to read "to study." There was some discussion about making the program available to individuals beyond their "formative phase" (i.e., more than 10 years beyond the doctorate). This led to a broader discussion of the need not only for a senior IRF Program but also for a junior SIF Program so that younger U.S. scientists could work abroad. The Board decided that without additional resources, the present IRF Program should continue as is. If additional resources become available, it was suggested that a new SIF Program for younger U.S. scientists should be considered, as well as an expansion of the IRF Program beyond the 10-year postdoctoral level or a strictly interpreted "formative stage of research career." Dr. Graham pointed out that current NIH mechanisms of support (e.g., the National Research Service Award) can be used by U.S. scientists seeking to work abroad.

Regarding expected accomplishments for IRF recipients, the Board suggested again that both short- and long-term measures of outcome were appropriate. In considering ways in which to increase participation in the program by developing countries, the Board discussed the relative underrepresentation of applicants from these countries. Several factors were cited including the lack of opportunities for research careers in these countries, language difficulties, lack of experience in proposal preparation, and weak membership on the Nominating Committees. Despite

these problems, Dr. Wallace stressed that scientific excellence must be maintained in the program. It was pointed out that the FIC is providing more guidelines and information on proposal writing and that the FIC is attempting to strengthen the process of working with the Nominating Committees. It was also suggested that USAID might be approached for resources to support scientists from developing countries.

Dr. Graham next raised the issue of program balance. In Fiscal Year 1987, $3.9 million was allocated to the SIF and IRF Programs; 22 percent was allocated to the SIF Program and 78 percent to the IRF Program. In Fiscal Year 1986, 40 SIF awards were made with a payline of 200, compared to 94 IRF awards with a payline of 230. After some discussion, the Board agreed that for the present no changes should be made in the balance between these programs. The members also suggested that, for programmatic reasons, applications in the infectious and tropical diseases areas should receive special attention.

Further discussion of the IRF and SIF stipends focused on a comparison with the stipend for the National Research Service Award. It was noted that IRF and SIF stipends were last adjusted in 1981-82. **The Board moved and unanimously agreed that the IRF stipend should match the NRSA stipend ($17,000-30,000 per annum).** The Board stated, however, that it still considered this amount to be low. The SIF stipend ($30,000) was considered reasonable, given that most Fellows receive partial salary support from their own institution.

The Board also considered whether the FIC should assist former Fellows in continuing their research efforts when they return to their home institutions. Members agreed that the ability to continue research after returning to the home institution, particularly in developing countries, may be problematic. One type of assistance considered beneficial would be to permit the former Fellow to return to the host U.S. laboratory periodically. The Board went on to probe the complexities in providing supplemental support and the difficulties involved in obtaining monetary support for such a program. It was suggested that USAID might be one source of funds. The Board also discussed the problem of differences in laboratory resources in the United States vs. the laboratory to which the Fellow will return and the (unknown) consequences for the scientists after termination of U.S. support. It was agreed that the FIC could organize a package of information for new Fellows that would list potential sources of funds to support them on their return to their home institutions, including a foreign component as part of a domestic NIH research grant.

The Board also stressed the importance of institution-building, which helps strengthen the scientific capabilities of developing countries. It was agreed that FIC staff should consider this concept for further discussion.

Lastly, the Board considered how aggressive the FIC should be in pursuing fellowship opportunities for U.S. scientists in foreign countries or organizations. Dr. Wallace noted that the FIC presently collects and disseminates information about these opportunities, and the Board suggested that this information be made accessible by computer.

The Board also commended the FIC on its news release about recent SIF awardees and suggested that an explanation of the SIF Program should be added to future releases.

Health Scientist Exchange and Biomedical Research Exchange Programs

Ms. Stephanie J. Bursenos, Acting Chief, International Coordination and Liaison Branch, FIC, discussed two categories of exchange programs currently managed by the FIC: the Health Scientist Exchange Programs and the Biomedical Research Exchange Programs. The first category of programs has been administered and supported by the FIC on behalf of the PHS since 1975. Under these programs, the FIC coordinates exchanges under bilateral agreements between the DHHS and the ministries of health in Hungary, Poland, Romania, the Soviet Union, and Yugoslavia. The second category of programs, established just last year, is limited to biomedical research and is conducted under two NIH agreements, one with the Bulgarian Medical Academy and the other with the Austrian Science Foundation. Materials describing each of these bilateral activities were distributed to the Board.

Ms. Bursenos directed her remarks at this Board meeting to the Health Scientist Exchange Programs. She described the history, indicating that these exchange programs were established under broad cultural, educational, scientific, and technological exchange agreements, with an emphasis on overcoming social and/or political barriers. The intent of the Health Scientist Exchange Programs is to promote contacts and collaborative activities between health professionals and biomedical scientists of the United States and participating countries. To satisfy this intent, programs provide support for short-term visits to conduct collaborative research and to explore prospects for collaborative research. International travel costs are paid by the sending side and in-country costs by the receiving side, but the programs do not provide support for formal training or attendance at scientific meetings. Ms. Bursenos also reviewed the application and review criteria and procedures, and gave an overview of the activities and issues involved in each country. Commenting that the quotas for each of the five countries currently involved are not being filled, Ms. Bursenos noted that the FIC has tried to foster bilateral activity through increased publicity about the programs and has been able to increase the number of applications from U.S. scientists. She affirmed that the FIC is fulfilling its mandate to promote bilateral contacts and collaborative activities in the study of health problems of mutual interest, but asked the Board to consider whether the FIC should be investing more time and resources to develop strategies for expanding existing exchange programs. She pointed out that total FIC costs for these programs average $100,000 each year and are increasing, and she estimated that if the quotas were filled, the costs could rise to $500,000 a year. Funds that are not spent each year are absorbed by other FIC programs.

Ms. Bursenos then briefly described the newly established Biomedical Research Exchange Programs with Bulgaria and Austria, noting that the NIH has also had expressions of interest in Biomedical Research Exchange Programs from Chile, Brazil, Mexico, Argentina, and Czechoslovakia. The Board asked about the selection of the specific countries and cautioned that all proposed exchanges be screened carefully to support activities related

to international scientific collaboration. Dr. Wallace expressed concern about new agreements that are initiated by the Administration for which no funds are made available. More discussion on this topic will take place during the September meeting of the Advisory Board during presentation of programs related to the fourth mission statement.

The Board briefly reviewed the third FIC mission statement and concurred that it is an appropriate function for the FIC.

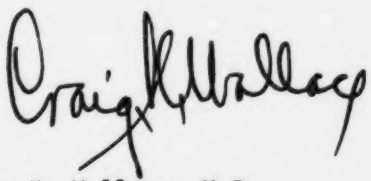
IX. SECONDARY REVIEW OF FELLOWSHIP APPLICATIONS AND SCHOLARS-IN-RESIDENCE NOMINATIONS

The meeting was closed to the public for discussion, review, and evaluation of 33 Senior International Fellowship applications. The Board concurred with the recommendations of the initial review group. The Board also approved the request of one SIF applicant to extend the fellowship from 10 to 12 months. The Board also reviewed and concurred with the recommendations of the Scholars' Advisory Panel concerning 13 Scholars-in-Residence nominations and 3 proposals for Scholars' conferences. The actual funding of approved applications and nominations is determined by availability of funds, priority scores, and program relevance.

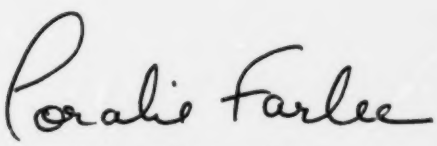
X. GENERAL DISCUSSION AND CONCLUSION

Dr. Wallace thanked Advisory Board members for their discussion and comments on the first three missions of the FIC. He noted that this detailed consideration of FIC programs will continue at the next meeting in September when the Board will address the remaining two missions: "to coordinate the activities of the NIH concerning . . . the health sciences internationally" and "to receive foreign scientists and visitors to the NIH." The meeting was adjourned at 12:02 p.m., May 20, 1987.

I hereby certify that, to the best of my knowledge, the foregoing summary is accurate and complete.*



Craig K. Wallace, M.D.
Chair, Fogarty International Center Advisory Board
and
Director, Fogarty International Center



Coralie Farlee, Ph.D.
Executive Secretary
Fogarty International Center Advisory Board
and
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* These minutes will be formally considered by the Advisory Board at the next meeting, and any corrections will be stated in the minutes of that meeting.

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